

Update on Atlantic Coast Pipeline

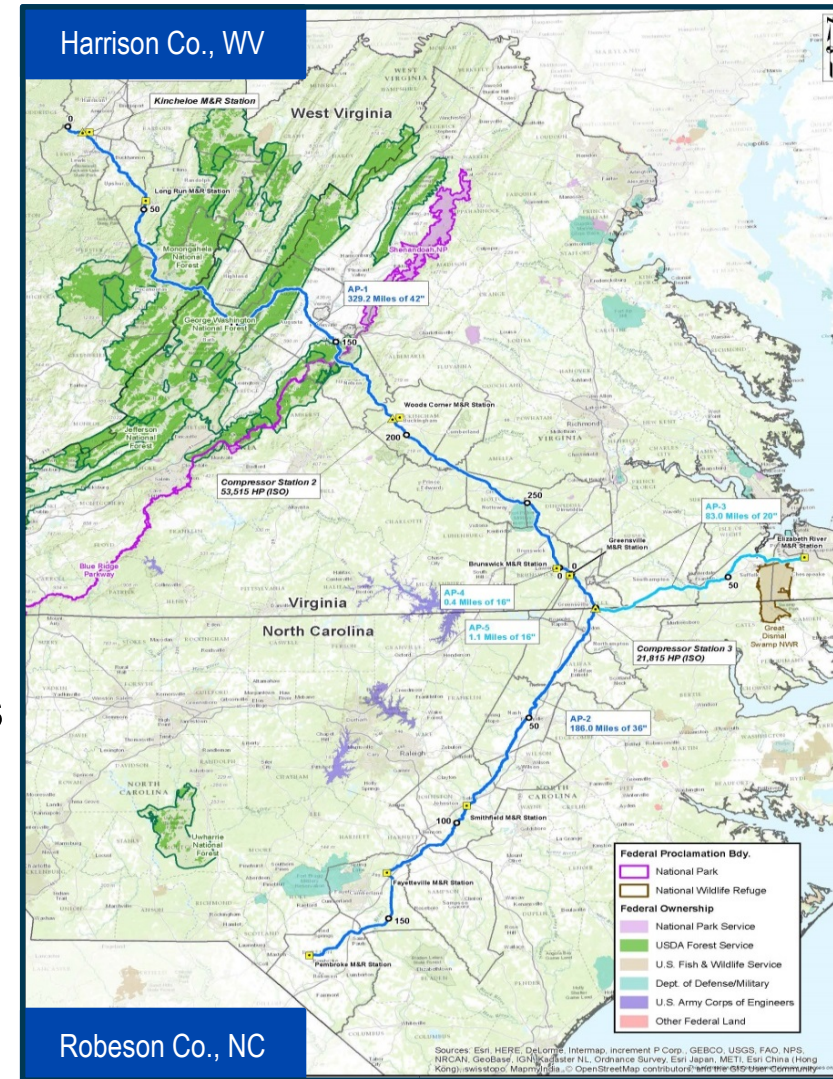


Public Service Commission of South Carolina (PSCSC)
Allowable Ex Parte Briefing Communication
NDI 2019-35-G
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Ex Parte Briefing: ACP Project Update

INTRODUCTION

- ACP is a proposed 600 mile interstate pipeline project designed to bring critical natural gas infrastructure and supply to the southeast/mid-Atlantic region.
 - Owners:
 - Dominion Energy
 - Duke Energy
 - Southern
 - Primary Customers
 - Duke Energy
 - Duke Energy Carolinas/Duke Energy Progress
 - Piedmont Natural Gas
 - Dominion
 - Virginia Power
 - PSNC
 - Southern
 - Virginia Natural Gas



Legal Update

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Overview of Notable Legal Challenges in the Courts and Regulatory Agencies

4th Circuit Panel Cases (Richmond, VA)

Appalachian Trail Crossing

- Agency: U.S. Forest Service
- On December 13, 2018, the 4th Circuit vacated the Special Use Permit, Plan Amendments and authorization to cross the Appalachian Trail
- Opinion: <http://www.ca4.uscourts.gov/opinions/181144.P.pdf>
- On October 4, 2019, the U.S. Supreme Court (SCOTUS) agreed to hear petitions of the U.S. Solicitor General and ACP seeking a review of the Appalachian Trail decision
- Expect SCOTUS to hear oral arguments February 2020 and a decision Summer 2020

Blue Ridge Parkway ROW Permit

- Agency: National Park Service
- On August 6, 2018, the 4th Circuit vacated the original National Park Service Right of Way (ROW) Permit
- Opinion: <http://www.ca4.uscourts.gov/opinions/181082.P.pdf>
- The second ROW Permit has been remanded back to the agency

Overview of Notable Legal Challenges in the Courts and Regulatory Agencies

4th Circuit Panel Cases (Continued)

Biological Opinion

- Agency: Fish and Wildlife Service
- On July 26, 2019, the 4th Circuit vacated the second FWS Biological Opinion
- Opinion: <http://www.ca4.uscourts.gov/Opinions/182090.P.pdf>

Air Permit for Buckingham Station

- Agency: Virginia State Air Pollution Control Board
- Oral arguments heard on October 29, 2019; expect decision by January 2020

Washington DC Federal Circuit

FERC Certificate (FERC)

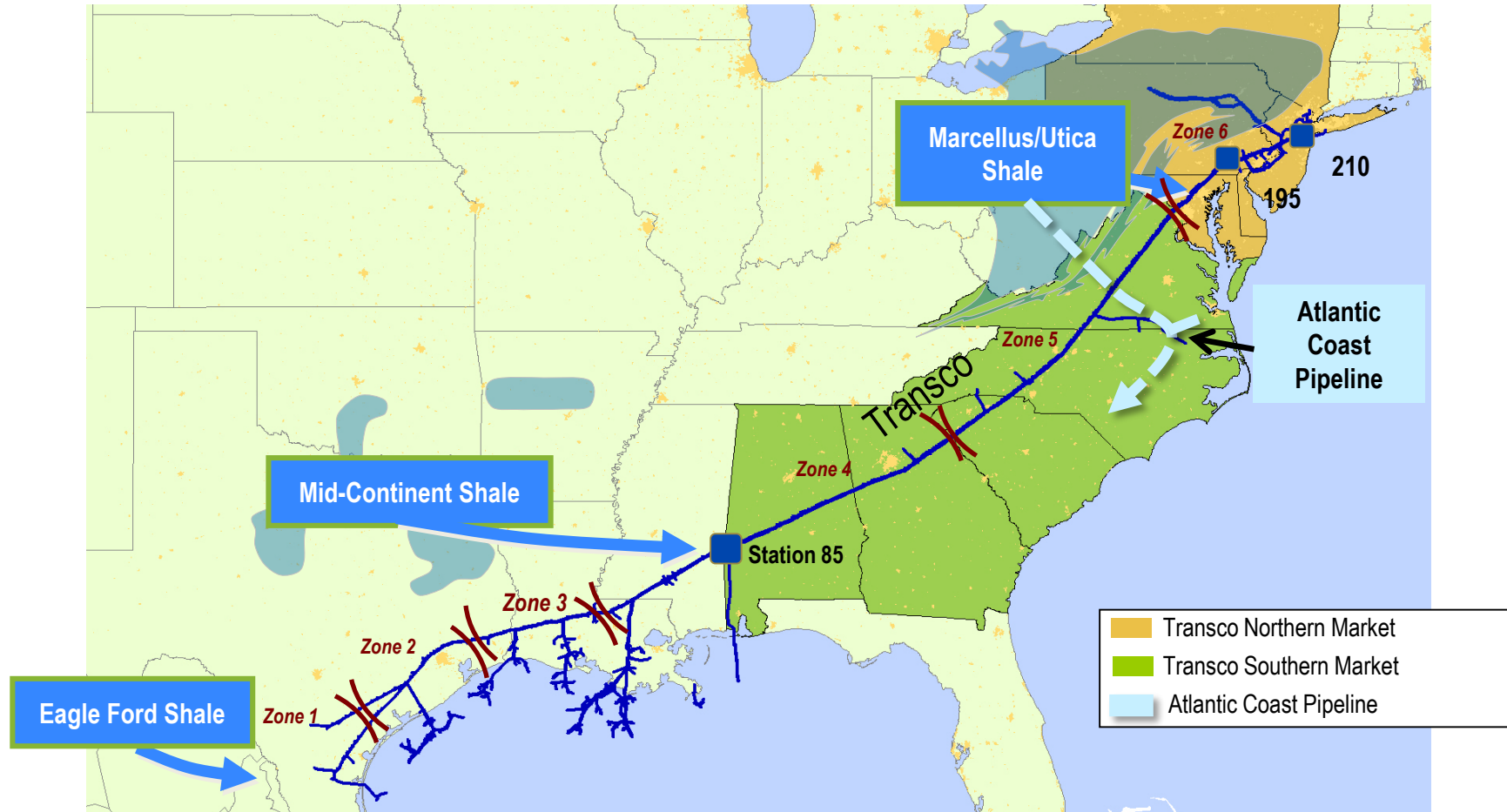
- On October 4, 2019, the DC Circuit placed the appeals in abeyance pending the outcome of the SCOTUS appeal

ACP Customer Panel

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Interstate Natural Gas Infrastructure & Supply Access



- The Carolinas are currently supplied primarily by one interstate pipeline.

ACP Business Drivers and Benefits

- Additional interstate pipeline infrastructure is required to:
 - Support Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP) current and future gas-fired generation needs.
 - Support Piedmont's natural gas demand growth and system infrastructure requirements.
- Diversification needed to provide:
 - Competitive pipeline capacity alternatives.
 - Increase in flexibility and enhancement to reliability of the Carolinas' infrastructure.
 - Access to low cost shale gas supplies in growing production region of Marcellus and Utica shale.
- Summary DEC/DEP/Piedmont drivers and benefits:
 - Required to meet existing and growing needs
 - Price advantages of having both new supply points and pipeline options.
 - New source of high pressure gas.
 - Increase in operational flexibility and reduction of risk of pipeline issues.

Atlantic Coast Pipeline (ACP) Overview



Structure:

- DEC, DEP and Piedmont Natural Gas have 20-Year Commitments.

Project Highlights:

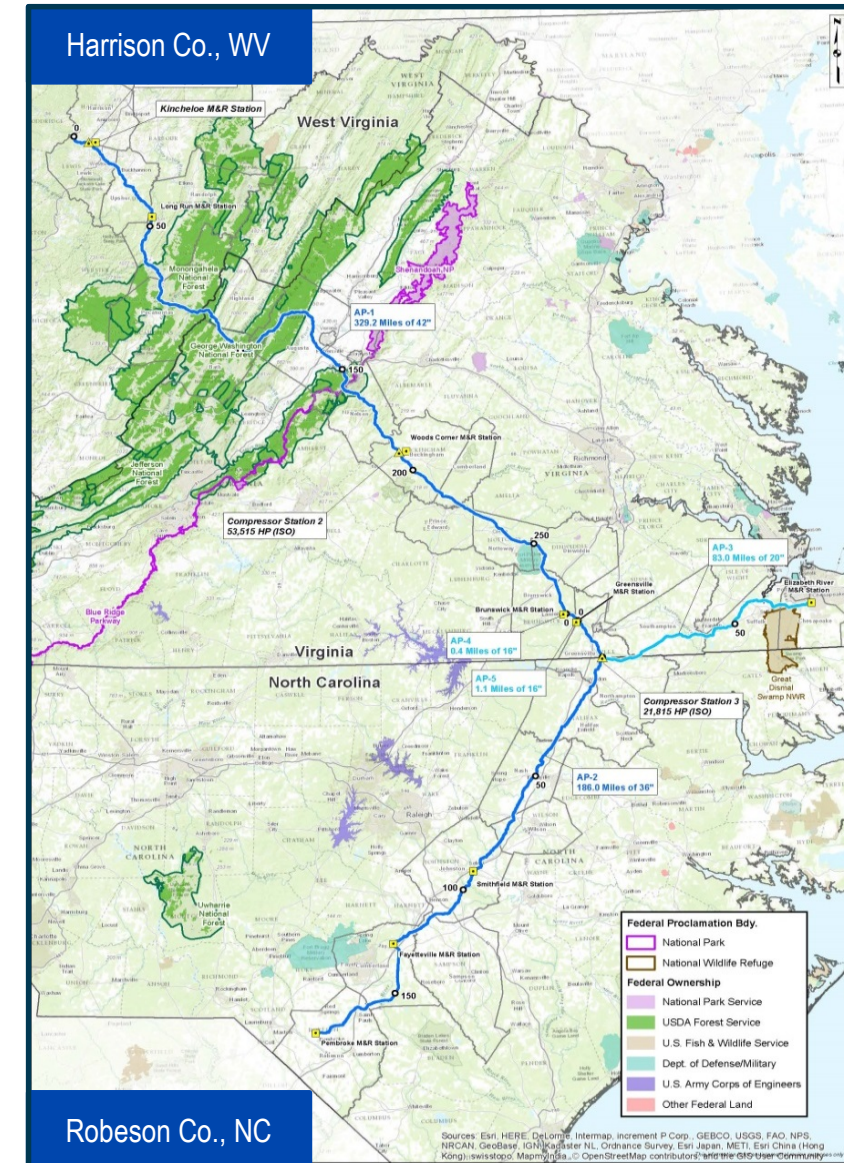
- ~600 mile FERC regulated pipeline extending from Marcellus and Utica shale to VA and NC
- Initial pipeline capacity of 1.5 Bcf/day with potential future expansion to 2 Bcf/day
- Additional access to Dominion South Pool and various Dominion receipt points via DTI Supply Header Project (SHP)

Project Facilities:

- 42-inch diameter in West Virginia and Virginia, 36-inch diameter in North Carolina,
- 20-inch diameter lateral extension from Virginia-North Carolina boarder to Hampton Roads
- Three gas-fired compressor station locations
 - ✓ Lewis County, WV,
 - ✓ Buckingham County, VA
 - ✓ Northampton County, NC

Primary Delivery Points:

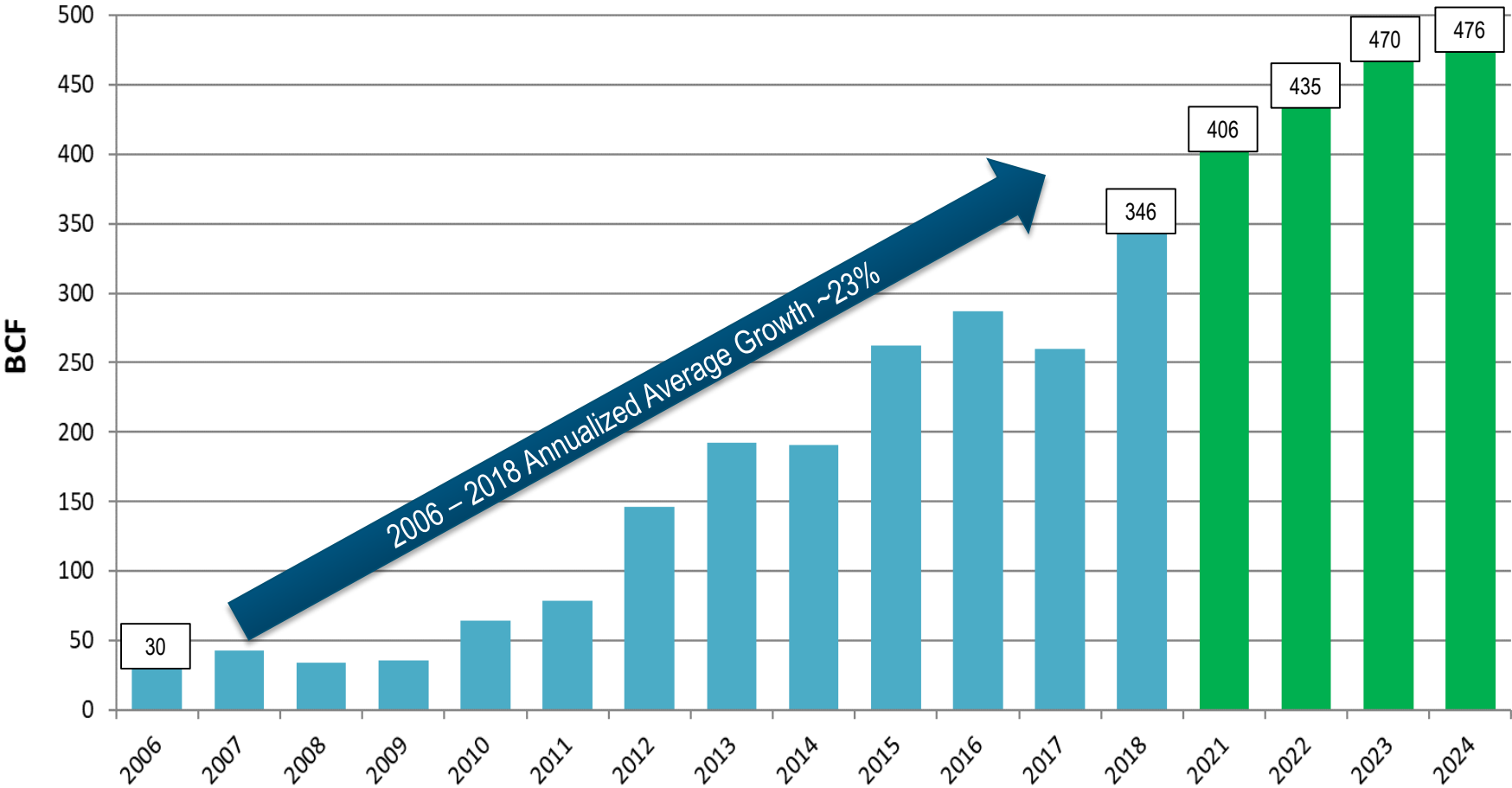
- Transco Zone 5 north of compressor station 165
- Interconnects into Piedmont system in NC (1) Johnston Co. (2) Cumberland Co. (3) Robeson Co.



ACP Firm Transportation Customers

- Total Initial Firm Transportation Capacity less than approximately 1,400,000 MMBtu/day.
- 20-Year commitments.
- Firm Transportation Customers on ACP (estimated volumes in MMBtu/day):
 - DEC and DEP - 725,000
 - Virginia Power (Dominion) - 300,000
 - Piedmont Natural Gas - 160,000
 - Virginia Natural Gas (Southern) - 75,000
 - PSNC and Others - < 150,000

Duke Regulated Electric Natural Gas Usage Trends and Forecast

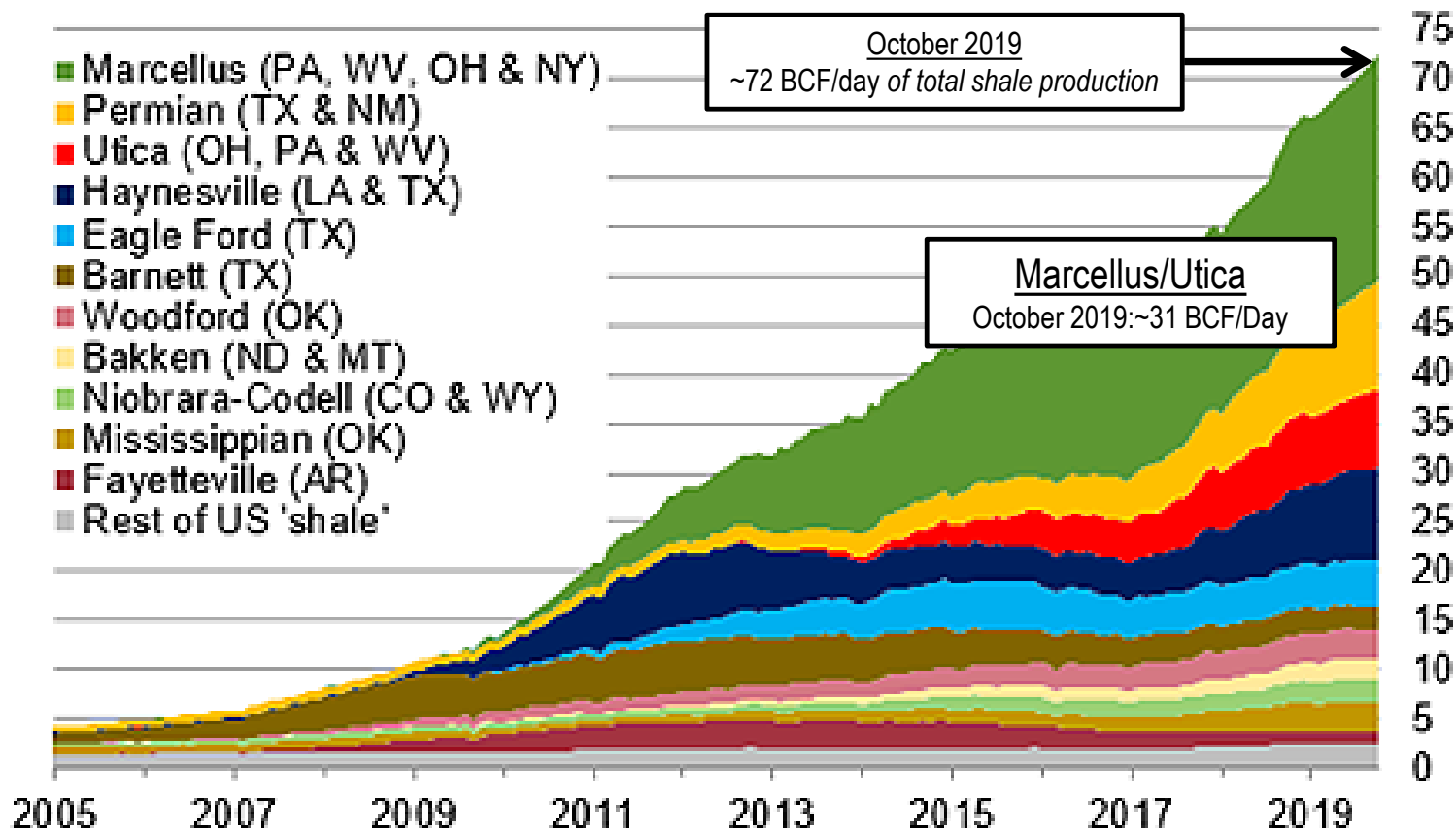


Forecasted gas burns include owned and tolled generating units and are estimates (as of 10/15/2019) that are subject to change over time.

Previous years are unaudited actuals of owned and tolled facilities gas usage.

Monthly dry shale gas production

billion cubic feet per day



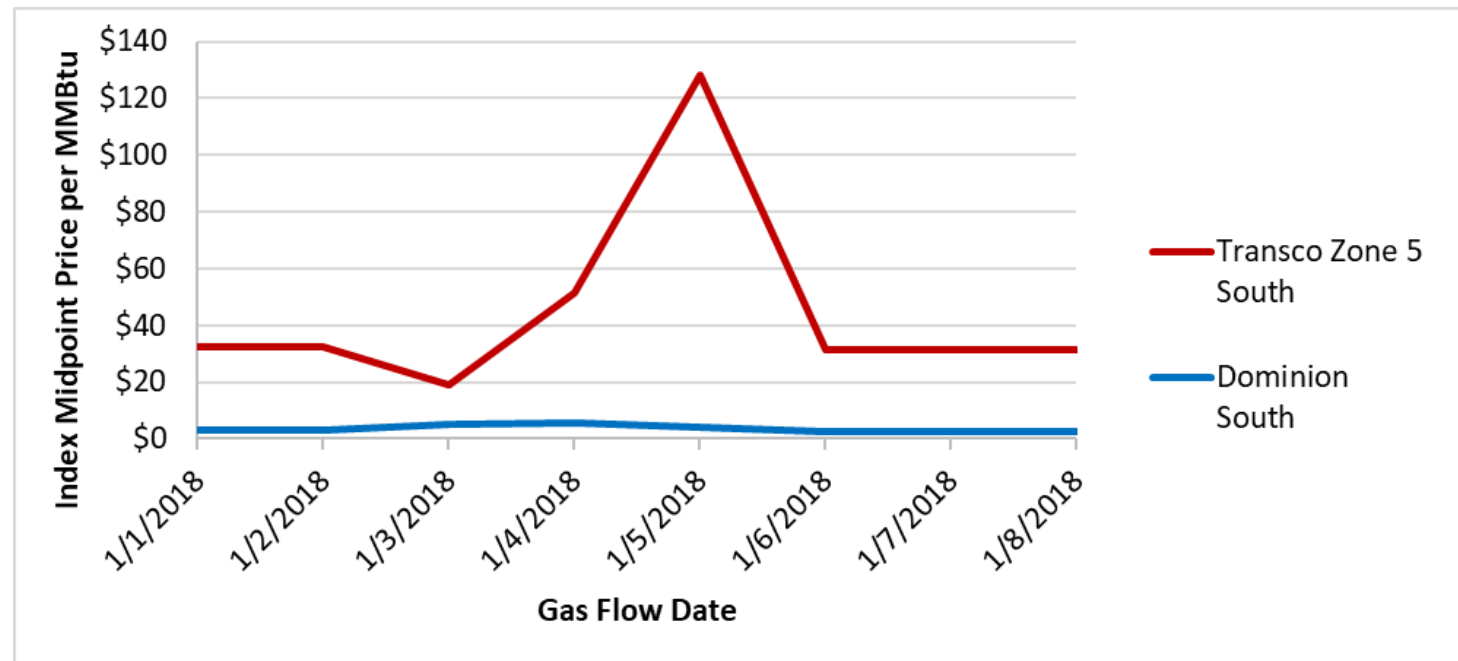
Sources: EIA derived from state administrative data collected by DrillingInfo Inc. Data are through October 2019 and represent EIA's official tight gas estimates, but are not survey data. State abbreviations indicate primary state(s).



Winter Natural Gas Price Volatility

January 2018 Prices

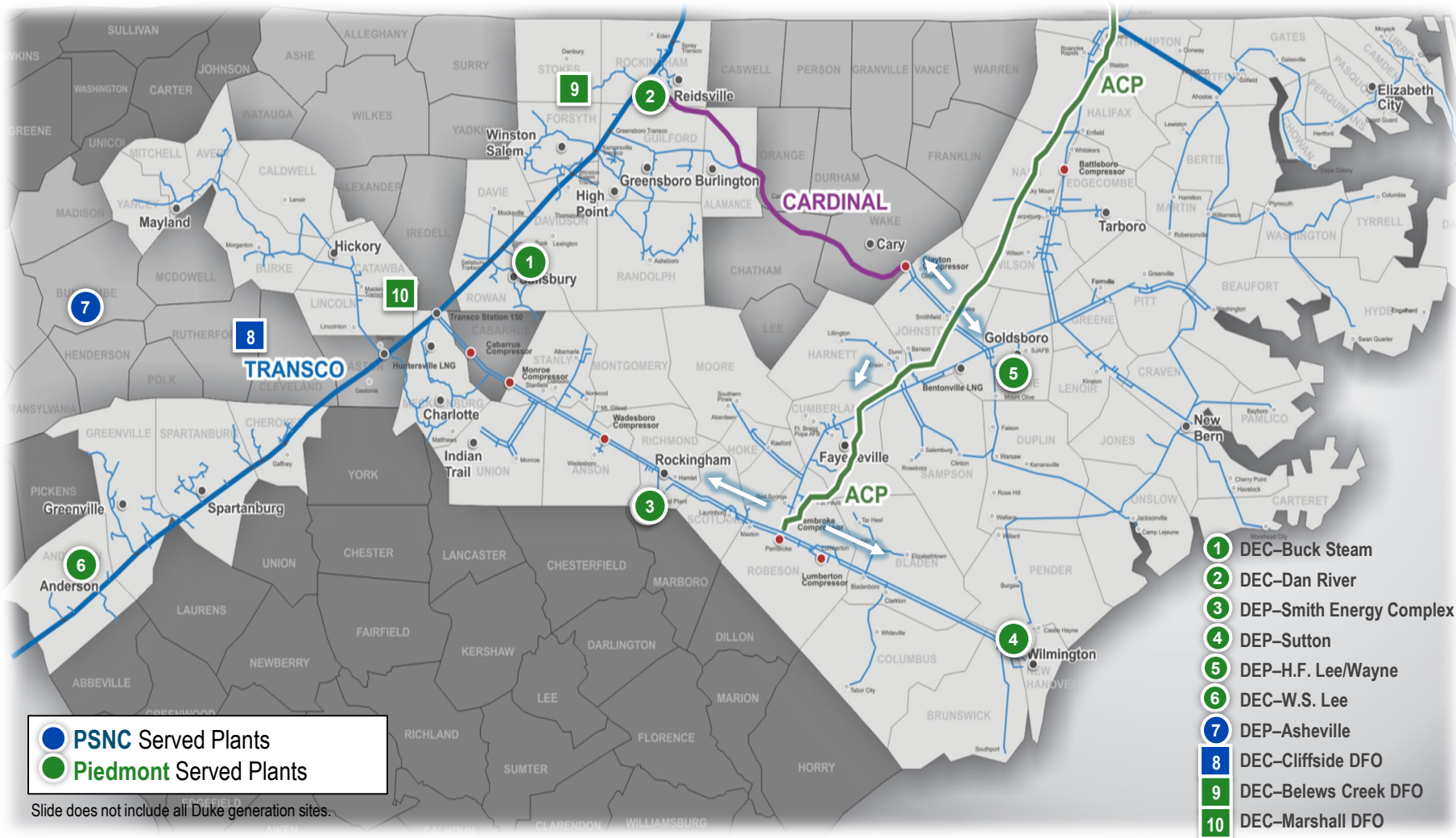
- Winter natural gas prices have been very volatile - Polar Vortex in 2014, January 2018.
- Spot daily price for natural gas delivered in Carolinas above \$120/mmBTU.
 - Burned approximately 43 million gallons of fuel oil.
- Dominion South prices significantly lower .
- Market prices in January 2018 responded to scarcity of pipeline capacity into Carolinas and not lack of natural gas supply.



Illustrative Map: Piedmont System, ACP and Transco



Piedmont
Natural Gas



The ACP delivery points into Piedmont's system allow Piedmont to efficiently make redeliveries of the natural gas to Duke and PSNC facilities.

Questions?